

**Cross Office Building
Kennebec County
Augusta, Maine
A-659-71-B-N**

**Departmental
Findings of Fact and Order
Air Emission License
After-the-Fact**

After review of the air emissions license application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., Section 344 and Section 590, the Department finds the following facts:

I. REGISTRATION

A. Introduction

The Air Emission License for the Cross Office Building (COB) of Augusta, Maine expired on 8/24/03. Sample has applied to renew their expired license permitting the operation of emission sources associated with their facility.

B. Emission Equipment

COB is licensed to operate the following equipment:

Fuel Burning Equipment

<u>Equipment</u>	<u>Maximum Capacity (MMBtu/hr)</u>	<u>Maximum Firing Rate (gal/hr)</u>	<u>Fuel Type, % sulfur</u>	<u>Stack #</u>
Boiler #1	14.6	104.3	#2 fuel oil, 0.35% *	1
Boiler #2	8.4	60.0	#2 fuel oil, 0.35% *	1
Boiler #3	12.5	89.3	#2 fuel oil, 0.35% *	1

*As of 9/1/04. Prior to 9/1/04 COB may fire up to 0.5% sulfur #2 fuel oil.

Electrical Generation Equipment

<u>Equipment</u>	<u>Power Output (kW)</u>	<u>Firing Rate (gal/hr)</u>	<u>Stack #</u>
Generator #2	500	35.6	2

Misc. Equipment

<u>Equipment</u>	<u>Size</u>
Parts Washer	35 gallon

C. Application Classification

The previous air emission license for COB expired on August 24, 2003. A complete application was not submitted on time, therefore COB is considered to be an existing source applying for an after-the-fact renewal. The facility is determined to be a minor source and the application has been processed through Chapter 115 of the Department's regulations.

II. BEST PRACTICAL TREATMENT (BPT)

A. Introduction

In order to receive a license the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in Chapter 100 of the Department regulations. Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

BPT for an after-the-fact renewal requires an analysis similar to a Best Available Control Technology analysis per Chapter 115 of the Department's regulations.

B. Boilers #1, #2, and #3

COB operates Boilers #1, #2, and #3 primarily for hot water and heating needs. COB may fire fuel oil with a sulfur content up to 0.5% by weight until 9/1/04. After which time COB shall fire only fuel oil with a sulfur content not to exceed 0.35% by weight.

Boiler #1 was installed in 1998 with a maximum heat input of 14.6 MMBtu/hr. Therefore, Boiler #1 is subject to the New Source Performance Standards (NSPS) Subpart Dc for steam generating units greater than 10 MMBtu/hr manufactured after June 9, 1989.

Boiler #2 has a maximum heat input of 8.4 MMBtu/hr and is therefore not subject to NSPS Subpart Dc.

Boiler #3 was installed in 1978 and is therefore not subject to NSPS Subpart Dc.

A summary of the BPT analysis for Boilers #1, #2, and #3 is the following:

1. The total fuel use for the facility shall not exceed 400,000 gal/year of #2 fuel oil, based on a 12 month rolling total.
2. COB shall fire in the boilers only #2 fuel oil with a maximum sulfur content not to exceed 0.5% by weight until 9/1/04.
3. After 9/1/04, COB shall fire in the boilers only #2 fuel oil with a maximum sulfur content not to exceed 0.35% by weight.
4. Chapter 106 regulates fuel sulfur content, however in this case BPT for SO₂ was determined to be a more stringent limit of 0.35% and shall be used.
5. Chapter 103 regulates PM emission limits. The PM₁₀ limits are derived from the PM limits.
6. NO_x emission limits are based on data from similar #2 fired boilers of this size and age.
7. CO and VOC emission limits are based upon AP-42 data dated 9/98.
8. Visible emissions from the boilers shall each not exceed 20% opacity on a six (6) minute block average, except for no more than one (1) six (6) minute block averages in a continuous 3-hour period.

C. Generator #2

COB operates Generator #2 as a back up emergency diesel generator.

“Emergency” is defined in Chapter 100 and throughout this document as: “... any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology based emission limitation under the license, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.”

A summary of the BPT analysis for Generator #2 (500 kW) is the following:

1. Generator #2 shall fire only diesel fuel with a maximum sulfur content not to exceed 0.05% by weight.
2. Generator #2 shall be limited to 500 hr/yr of operation based on a 12 month rolling total. Compliance shall be demonstrated by a written log of all generator operating hours.
3. Chapter 106 regulates fuel sulfur content, however in this case BPT for SO₂ was determined to be a more stringent limit of 0.05% and shall be used.
4. Chapter 103 regulates PM emission limits. The PM₁₀ limits are derived from the PM limits.

5. NO_x, CO, and VOC emission limits are based upon AP-42 data dated 10/96.
6. Visible emissions from Generator #2 shall not exceed 20% opacity on a six (6) minute block average, except for no more than two (2) six (6) minute block averages in a continuous 3-hour period.

D. Parts Washer

The parts washer was manufactured in 1984 and installed in 1996. This unit has a design capacity of 35 gallons.

E. Annual Emission Restrictions

COB shall be restricted to the following annual emissions, based on a 12 month rolling total:

Total Licensed Annual Emission for the Facility
(used to calculate the annual license fee)

	PM	PM₁₀	SO₂	NO_x	CO	VOC
Boilers #1, #2, #3	3.4	3.4	9.9	9.8	1.0	0.1
Generator #2	0.2	0.2	0.1	3.9	1.0	0.1
Total TPY	3.6	3.6	10.0	13.7	2.0	0.2

III.AMBIENT AIR QUALITY ANALYSIS

According to the Maine Regulations Chapter 115, the level of air quality analyses required for a renewal source shall be determined on a case-by case basis. Modeling and monitoring are not required for a renewal if the total emissions of any pollutant released do not exceed the following:

<u>Pollutant</u>	<u>Tons/Year</u>
PM	25
PM ₁₀	25
SO ₂	50
NO _x	100
CO	250

Based on the above total facility emissions, COB is below the emissions level required for modeling and monitoring.

ORDER

Based on the above Findings and subject to conditions listed below, the Department concludes that the emissions from this source:

- will receive Best Practical Treatment,
- will not violate applicable emission standards,
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-659-71-B-N subject to the following conditions:

- (1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions (Title 38 MRSA §347-C).
- (2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 115. [MEDEP Chapter 115]
- (3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both. [MEDEP Chapter 115]
- (4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request. [MEDEP Chapter 115]
- (5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S.A. §353. [MEDEP Chapter 115]
- (6) The license does not convey any property rights of any sort, or any exclusive privilege. [MEDEP Chapter 115]

- (7) The licensee shall maintain and operate all emission units and air pollution systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions. [MEDEP Chapter 115]
- (8) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request. [MEDEP Chapter 115]
- (9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for a renewal of a license or amendment shall not stay any condition of the license. [MEDEP Chapter 115]
- (10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license. [MEDEP Chapter 115]
- (11) In accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department, the licensee shall:
 - (i) perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:
 - a. within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions; or
 - b. pursuant to any other requirement of this license to perform stack testing.
 - (ii) install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and
 - (iii) submit a written report to the Department within thirty (30) days from date of test completion.

[MEDEP Chapter 115]

- (12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess of the applicable standards, then:
- (i) within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department; and
 - (ii) the days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and
 - (iii) the licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.
- [MEDEP Chapter 115]
- (13) Notwithstanding any other provisions in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement. [MEDEP Chapter 115]
- (14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emission and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitation. [MEDEP Chapter 115]
- (15) Upon written request from the Department, the licensee shall establish and maintain such records, make such reports, install, use and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such a manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status. [MEDEP Chapter 115]

(16) Boilers #1, #2, and #3

- A. Total fuel use for the facility shall not exceed 400,000 gal/yr of #2 fuel oil. [MEDEP Chapter 115]
- B. COB shall fire in the boilers only #2 fuel oil with a maximum sulfur content not to exceed 0.5% by weight until 9/1/04. [MEDEP Chapter 115]
- C. After 9/1/04, COB shall fire in the boilers only #2 fuel oil with a maximum sulfur content not to exceed 0.35% by weight. [MEDEP Chapter 115]
- D. Compliance with Conditions (16)(A), (B), and (C) above shall be based on fuel receipts from the supplier showing the quantity of fuel delivered and the percent sulfur of the fuel. Records of annual fuel use shall be kept on a 12-month rolling total basis. [MEDEP Chapter 115]
- E. Emissions shall not exceed the following [MEDEP Chapter 115]:

Equipment		PM	PM₁₀	SO₂	NO_x	CO	VOC
Boiler #1	lb/MMBtu	0.12	-	-	-	-	-
	lb/hr	1.75	1.75	5.15	5.11	0.52	0.02
Boiler #2	lb/MMBtu	0.12	-	-	-	-	-
	lb/hr	1.01	1.01	2.96	2.94	0.30	0.02
Boiler #3	lb/MMBtu	0.12	-	-	-	-	-
	lb/hr	1.50	1.50	4.41	4.38	0.45	0.02

- F. Visible emissions from the boilers shall each not exceed 20% opacity on a six (6) minute block average, except for no more than one (1) six (6) minute block averages in a continuous 3-hour period. [MEDEP Chapter 101]

(17) NSPS Requirements [40 CFR Part 60, Subpart Dc]

Boiler #1 is subject to Federal New Source Performance Standards, Subpart Dc. COB shall comply with all requirements of 40 CFR Part 60, Subpart Dc including, but not limited to, the following:

- A. COB shall record and maintain records of the amounts of each fuel combusted during each day.
- B. COB shall submit to EPA and the Department semi-annual reports. These reports shall include the calendar dates covered in the reporting period and records of fuel supplier certifications. The fuel supplier certification must contain the name of the oil supplier and a statement from the oil supplier that the oil complies with ASTM specifications for #2 fuel oil. The semi-annual reports are due within 30 days of the end of each 6-month period.

- C. The following address for EPA shall be used for any reports or notifications required to be copied to them:

Compliance Clerk
USEPA Region 1
1 Congress Street
Suite 1100
Boston, MA 02114-2023

(18) Generator #2

- A. COB shall limit the Generator #2 to 500 hr/yr of operation (based on a 12 month rolling total). An hour meter shall be maintained and operated on Generator #2. [MEDEP Chapter 115]
- B. A log documenting the dates, times, and reason of operation for Generator #2 shall be kept. [MEDEP Chapter 115]
- C. Generator #2 shall fire diesel fuel with a sulfur limit not to exceed 0.05% by weight. Compliance shall be based on fuel receipts from the supplier showing the quantity of fuel delivered and the percent sulfur of the fuel. [MEDEP Chapter 115]
- D. Emissions shall not exceed the following [MEDEP Chapter 115]:

Equipment		PM	PM₁₀	SO₂	NO_x	CO	VOC
Generator #2	lb/MMBtu	0.12	-	-	-	-	-
	lb/hr	0.59	0.59	0.25	15.62	4.15	0.44

- E. Visible emissions from Generator #2 shall not exceed 20% opacity on a six (6) minute block average, except for no more than two (2) six (6) minute block averages in a continuous 3-hour period. [MEDEP Chapter 101]

(19) Parts Washer [MEDEP Chapter 130]

The parts washer is subject to the operational and record keeping requirements of MEDEP Chapter 130 which include, but are not limited to, the following:

- A. COB shall keep records of the amount of solvent added to each parts washer.
- B. COB shall attach a permanent conspicuous label to each unit summarizing the following operational standards of Chapter 130:
- Equip each cold cleaning degreaser with a cover that is easily operated with one hand if:
 - the solvent vapor pressure is greater than 15 millimeters of mercury measured at 100 °F by ASTM D323-89; or,
 - the solvent is agitated; or,
 - the solvent is heated.

2. Close the covers on all solvent degreasing tanks when the tanks are not in use;
 3. Drain the cleaned parts for at least fifteen (15) seconds or until dripping stops;
 4. If used, supply a solvent spray that is a solid fluid stream (not a fine, atomized or shower-type spray) at a pressure that does not exceed ten (10) pounds per square inch gauge pressure (psig);
 5. Do not degrease porous or absorbent materials, such as cloth, leather, wood or rope;
 6. Minimize drafts to less than 40 meters/minute;
 7. Refrain from operating the cold cleaning degreaser upon the occurrence of any visible solvent leak until such leak is repaired; and
 8. Do not use any halogenated solvents in the degreasing tanks.
- (20) COB shall notify the Department within 48 hours and submit a report to the Department on a quarterly basis if a malfunction or breakdown in any component causes a violation of any emission standard (Title 38 MRSA §605-C).
- (21) COB shall pay the annual air emission license fee within 30 days of August 31st of each year. Pursuant to 38 M.R.S.A. Section 353-A, failure to pay this annual fee in the stated timeframe is sufficient grounds for revocation of the license under 38 M.R.S.A. Section 341-D, Subsection 3.
- (22) The term of this Order shall be for five (5) years from the signature below.

DONE AND DATED IN AUGUSTA, MAINE THIS DAY OF 2003.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____
DAWN R. GALLAGHER, COMMISSIONER

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 10/6/03

Date of application acceptance: 10/7/03

Date filed with the Board of Environmental Protection: _____

This Order prepared by Lynn Ross, Bureau of Air Quality.